

## GROUND WATER QUALITY PROTECTION

Recently enacted legislation requires that industries selling property in the state must obtain approval from the department prior to sale. Approval is contingent on the cleanup of any hazardous waste including contaminated ground water. Since its inception, more than 1000 approvals have been sought; 200 sites have required ground water cleanups prior to sale.

Model programs to protect ground water have been developed at the local level, concentrating on recharge management in Middlesex County. Land management guidelines are being developed for incorporation into model ordinances.

## WISCONSIN

### Overview of Ground Water Resources

Wisconsin is a state that is heavily dependent on ground water and has been very active in developing programs to manage and protect ground water. About 70 percent of the state's population relies on ground water for its supply. About half of the total municipal supplies are from ground water, and all rural supplies are from ground water. Other uses of ground water include livestock use, which accounts for about 12 percent of all ground water withdrawal; industrial uses, which amount to approximately 11 percent of ground water withdrawals; and irrigation uses, which amount to about 14 percent. The largest withdrawals are for irrigation in central Wisconsin and for municipal supplies for Eau Claire, Janesville, La Crosse, and Madison. The natural chemical quality of the water throughout the state is suitable for human consumption and most other uses in most locations. The principal aquifers in Wisconsin consist of surficial glacial deposits and sedimentary sandstones and dolomites. Although the crystalline and igneous and metamorphic rocks that underlie these formations are used for local and individual domestic wells, the unconsolidated sand and gravel aquifer is one of the most important ground water supplies in the northern one third of the state. The Silurian dolomite aquifer is in a restricted area along the eastern coast of Wisconsin. Perhaps the most important aquifer in the state is the so-called sandstone aquifer, which underlies the southern two thirds of the state and is composed of sandstones and dolomites (see Table 3.11).

### Ground Water Quality Issues

Wisconsin has experienced a number of problems in ground water contamination. The principal sources of concern include leaching of agricultural pesticides and fertilizers, underground storage tanks, municipal waste